AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of transfecting ~~an~~ antigen presenting cells with ~~at least one mRNA~~, comprising:

(a) preparing a preparation essentially devoid of antisense-oriented RNA and double-stranded RNA and comprising at least one sense-oriented mRNA encoding an antigen by:

(i) amplifying ~~at least one~~ mRNA from a sample to produce a polynucleotide template, wherein the polynucleotide template comprises a promoter suitable for *in vitro* transcription operably linked only to a sense strand of the polynucleotide template; and

(ii) *in vitro* transcribing the polynucleotide template to produce ~~the at least one~~ a sense-oriented mRNA encoding an antigen, wherein the polynucleotide template is not a cloned template; and

(b) transfecting ~~at least one~~ antigen presenting cells with the ~~at least one~~ sense-oriented mRNA from the preparation.

2. (Currently Amended) The method of claim 1, wherein the mRNA in the sample is from a cancer cell or a virion.

3. (Currently Amended) The method of claim [[2]] 1, wherein the ~~cell is selected from the group consisting of a cancer cell and~~ mRNA in the sample is from a microbial cell.

4. (Currently Amended) The method of claim [[3]] 2 wherein the mRNA in the sample is from a cancer cell and the cancer ~~cell~~ is ~~derived from a cancer~~ selected from the group consisting of hematologic malignancies, renal cell cancer, melanoma, breast cancer, prostate cancer, testicular cancer, bladder cancer, ovarian cancer, cervical cancer, stomach cancer, esophageal cancer, pancreatic cancer, lung cancer, neuroblastoma, glioblastoma, retinoblastoma, leukemias, myelomas, lymphomas, hepatoma, adenomas, sarcomas, carcinomas, and blastomas.

5. (Original) The method of claim 3, wherein the microbial cell is selected from the group consisting of *Helicobacter sp.*, *Salmonella sp.*, *Shigella sp.*, *Enterobacter sp.*, *Campylobacter sp.*, *Mycobacterium sp.*, *Bacillus anthracis*, *Yersinia pestis*, *Francisella tularensis*, *Brucella sp.*, *Leptospira interrogans*, *Staphylococcus sp.*, *Streptococcus sp.*, *Clostridium sp.*, *Candida albicans*, *Plasmodium sp.*, *Leishmania sp.*, and *Trypanosoma sp.*

6. (Currently Amended) The method of claim 2, wherein the mRNA in the sample is from a virion ~~is~~ selected from the group consisting of human immunodeficiency virus, hepatitis B virus, hepatitis C virus, human papilloma virus, cytomegalovirus, human T-cell lymphotropic virus, herpes simplex virus 1, herpes simplex virus 2, varicella-zoster virus, Epstein-Barr virus, influenza virus, coronavirus, poliomyelitis virus, measles virus, mumps virus, and rubella virus.

7. Canceled.

8. Canceled

9. Canceled

10. (Currently Amended) The method of claim [[9]] 1, wherein the ~~plurality of mRNAs~~ mRNA in the sample comprises a total mRNA population derived from a cell or a virion.

11. Canceled

12. Canceled

13. Canceled

14. (Original) The method of claim 1, wherein amplifying the mRNA from the sample comprises:

(a) reverse transcribing the mRNA from the sample to produce a polynucleotide template comprising a cDNA; and

(b) amplifying the polynucleotide template cDNA using a first primer and a second primer, wherein only one of the first primer and the second primer inserts the promoter suitable for *in vitro* transcription into the polynucleotide template cDNA.

15. Canceled

16. Canceled

17. (Original) The method of claim 14, wherein the first and second primers share essentially no sequence homology to one another.

18. (Original) The method of claim 14, wherein the first primer comprises a poly T stretch and a 5' sequence having essentially no sequence homology to the second primer and the second primer comprises the promoter suitable for *in vitro* transcription.

19. (Original) The method of claim 18, wherein the first primer comprises the sequence of SEQ ID NO: 2.

20. (Original) The method of claim 1, wherein transfecting is accomplished using a method selected from the group consisting of electroporation, nanoparticle-mediated transfection, peptide-mediated transfection and lipofection.

21. (Currently Amended) The method of claim 1, wherein the antigen presenting cell is ~~selected from the group consisting of~~ a dendritic cell ~~and a macrophage~~.

22. (Original) The method of claim 21, wherein the dendritic cell is an immature dendritic cell.

23. (Original) The method of claim 21 wherein the dendritic cell is a mature dendritic cell.

24. (Original) The method of claim 1, wherein the transfecting is *in vitro*.

25. (Original) The method of claim 1, wherein the transfecting is *in situ*.

26. Canceled.

27. Canceled

28. Canceled

29. Canceled

30. Canceled

31. Canceled

32. Canceled

33. Canceled

34. (Currently Amended) A method of generating an immune response in a subject against at least one antigen, comprising introducing ~~the~~ a mRNA loaded antigen presenting cell prepared by the method of claim [[26]] 1 into a subject, wherein the mRNA loaded antigen presenting cell presents the at least one antigen to the immune system of the subject, thereby generating an immune response against the at least one antigen.

35. (Currently Amended) The method of claim 34, wherein the mRNA encodes at least one antigen from a cancer cell or a virion.

36. (Currently Amended) The method of claim 35, wherein the mRNA encodes an antigen from a cancer cell or ~~and~~ a microbial cell.

37. (Currently Amended) The method of claim 36 wherein the mRNA encodes an antigen from a cancer cell ~~is derived from a~~ and the cancer is selected from the group consisting of hematologic malignancies, renal cell cancer, melanoma, breast cancer, prostate cancer, testicular cancer, bladder cancer, ovarian cancer, cervical cancer, stomach

cancer, esophageal cancer, pancreatic cancer, lung cancer, neuroblastoma, glioblastoma, retinoblastoma, leukemias, myelomas, lymphomas, hepatoma, adenomas, sarcomas, carcinomas, and blastomas.

38. Canceled

39. (Currently Amended) The method of claim 35, wherein the mRNA is from a virion ~~is~~ selected from the group consisting of human immunodeficiency virus, hepatitis B virus, hepatitis C virus, human papilloma virus, cytomegalovirus, human T-cell lymphotropic virus, herpes simplex virus 1, herpes simplex virus 2, varicella-zoster virus, Epstein-Barr virus, influenza virus, coronavirus, poliomyelitis virus, measles virus, mumps virus, and rubella virus.

40. Canceled

41. Canceled

42. (Currently Amended) The method of claim [[41]] 34, wherein the antigen presenting cell is a dendritic cell.

43. Canceled

44. Canceled

45. Canceled